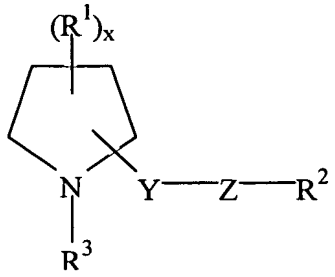
Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A compound of the formula



wherein:

x is from 0 to 2;

R^1 is selected from the group consisting of hydroxy, C_1 to C_9 alkoxy (optionally substituted by halo), C_1 to C_9 cycloalkylalkoxy (wherein the cycloalkyl group is optionally substituted by C_1 to C_4 alkyl or halo, and the alkoxy group is optionally substituted by halo), arylalkoxy (wherein the aryl group is optionally substituted by C_1 to C_4 alkyl, C_1 to C_3 alkoxy or halo, and the alkoxy group is optionally substituted by halo) and C_1 to C_9 alkyl amino (wherein the alkyl group is optionally substituted by halo)

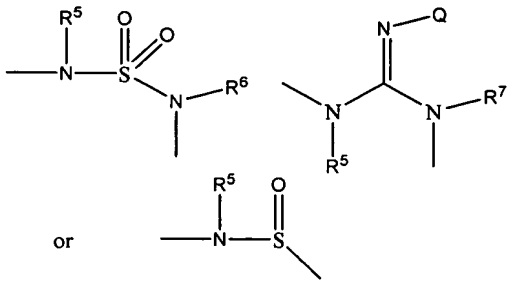
R^2 is selected from the group consisting of H, alkyl, aryl, arylalkyl, cycloalkyl and cycloalkylalkyl, wherein alkyl moieties are optionally substituted by halo, and aryl groups are optionally substituted by C_1 to C_4 alkyl, C_1 to C_4 alkoxy and halo,

R^3 is absent when -Y-Z-R^2 is attached to N, or R^3 is selected from the group consisting of H, C_1 to C_7 alkyl and benzyl, when

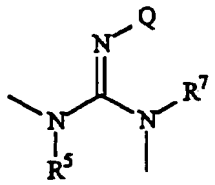
-Y-Z-R^2 is not attached to N;

Y is C_2 to C_{10} alkylene, in which one non-terminal carbon atom may be replaced by O; and

Z is



wherein R^5, R^6 and R^7 are independently H, aryl (C_1 to C_3) alkyl or cycloalkyl (C_1 to C_3) alkyl optionally substituted by halo, and Q is H or methyl, ~~or Q is linked to R^5 or R^7 to form a five-membered ring or Q is linked to R^2 to form a six-membered ring,~~ provided that when Z is



at least one of R^5 and R^7 is aryl(C_1 to C_3)alkyl or cycloalkyl(C_1 to C_3)alkyl, optionally substituted by halo;

or a pharmaceutically acceptable salt thereof.

2. (Cancelled)

3. (Withdrawn) The compound of claim 1 or 30 wherein R^2 is selected from phenyl, halophenyl, benzyl, halobenzyl, phenylethyl, halophenylethyl, phenylpropyl, halophenylpropyl, phenylbutyl, halophenylbutyl, tolyl, methoxybenzyl, trifluoromethylbenzyl, halo-methoxybenzyl, phenylbenzyl, adamantanemethyl, adamantaneethyl, adamantanepropyl, cyclohexanemethyl, cyclohexaneethyl, and naphthyl.

4. (Withdrawn) The compound of claim 1 or 30 wherein x is 0.

5. (Withdrawn) The compound of claim 1 or 30 wherein x is 1 or 2, and R^1 is selected from hydroxy, C_1 to C_9 alkoxy (optionally substituted by halo), C_1 to C_9 cycloalkylalkoxy (wherein the cycloalkyl group is optionally substituted by C_1 to C_4 alkyl or halo, and the alkoxy group is optionally substituted by halo), arylalkoxy (wherein the aryl

group is optionally substituted by C_1 to C_4 alkyl, C_1 to C_3 alkoxy or halo, and the alkoxy group is optionally substituted by halo) and C_1 to C_9 alkylamino wherein the alkyl group is optionally substituted by halo.

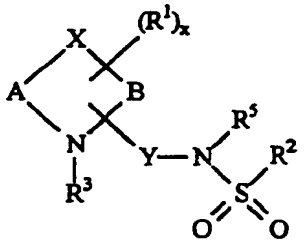
6.-7. (Cancelled)

8. (Withdrawn) The compound of claim 1, wherein Y is propylene, butylene, pentylene, hexylene, heptylene, octylene or nonylene.

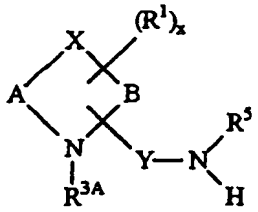
9.-12. (Cancelled)

13. (Withdrawn) A pharmaceutical composition comprising a therapeutically effective amount of the compound of claim 1, and a physiologically acceptable diluent or carrier.

14. (Withdrawn) A method of making a compound of the formula

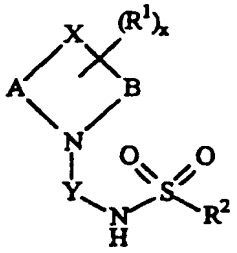


wherein A, B, x, R^1, R^2, R^3, R^5, X and Y are as recited in claim 1, said method comprising the step of reacting a compound of the formula R^2SO_2Cl with a compound of the formula

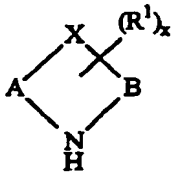


wherein R^{3A} is C_1 to C_7 hydrocarbyl or a protecting group.

15. (Withdrawn) A method of making a compound of the formula

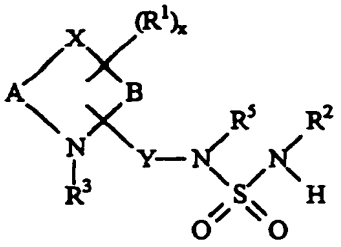


wherein A, B, x, R^1, R^2, X and Y are as recited in claim 1, said method comprising the step of reacting a compound of the formula

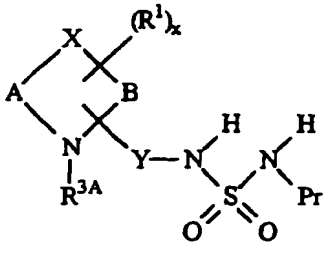


with a compound of the formula Cl-Y-NH-SO_2-R^2.

16. (Withdrawn) A method of making a compound of the formula

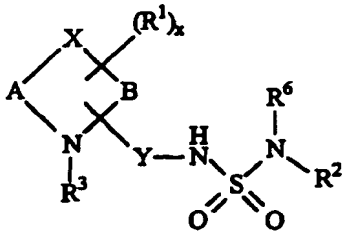


wherein A, B, x, R^1, R^2, R^3, R^5, X and Y are as recited in claim 1, said method comprising the step of reacting a compound of the formula

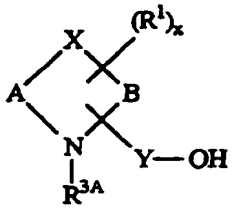


(wherein R^{3A} is C_1 to C_7 hydrocarbyl or a protecting group and Pr is a protecting group) with a compound of the formula R^2Br, and reacting the product with R^5Br when R^5 is not hydrogen.

17. (Withdrawn) A method of making a compound of the formula

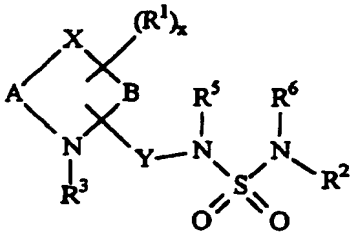


wherein A, B, x, R^1, R^2, R^3, X and Y are as recited in claim 1, said method comprising the step of reacting a compound of the formula

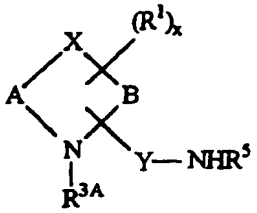


(wherein R^{3A} is C_1 to C_7 hydrocarbyl or a protecting group) with a compound of the formula R^2-NH-SO_2-NH-Pr, wherein Pr is a protecting group, and reacting the product with R^6Br when R^6 is not hydrogen.

18. (Withdrawn) A method of making a compound of the formula

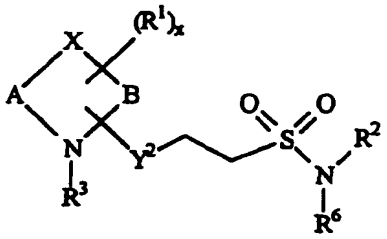


wherein A, B, x, R^1, R^2, R^3, R^5, R^6, X and Y are as recited in claim 1, said method comprising the step of reacting a compound of the formula

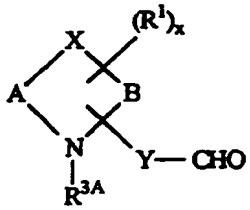


(wherein R^{3A} is C_1 to C_7 hydrocarbyl or a protecting group) with a compound of the formula R^2R^6NH and sulfamide.

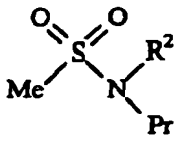
19. (Withdrawn) A method of making a compound of the formula



wherein A, B, R^1, R^2, R^3, R^6 and X are as recited in claim 1 and Y^2 is a bond or C_1 to C_8 alkylene, said method comprising the step of reacting a compound of the formula

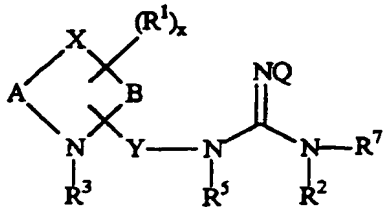


(wherein R^{3A} is C_1 to C_7 hydrocarbyl or a protecting group) with a compound of the formula

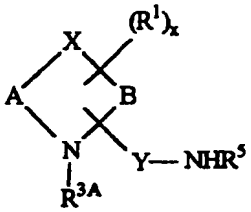


wherein Pr is a protecting group, reducing the reaction product, and (when R^6 is not hydrogen) reacting the reduced product with R^6Br.

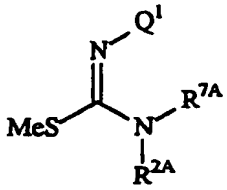
20. (Withdrawn) A method of making a compound of the formula



wherein A, B, x, R^1, R^2, R^3, R^5, R^7, Q, X and Y are as recited in claim 1, said method comprising the step of reacting a compound of the formula

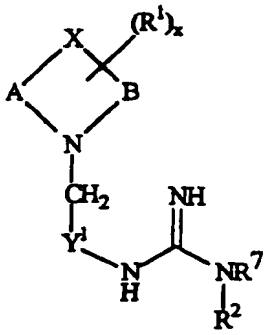


with a compound of the formula

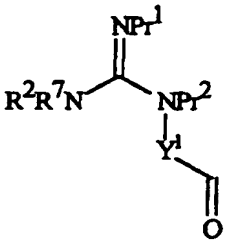


wherein Q^1, R^{2A}, R^{3A}, and R^{7A} are any of the groups defined for Q, R^2, R^3, and R^7, respectively, or protecting groups.

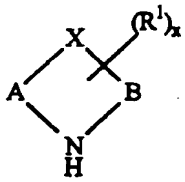
21. (Withdrawn) A method of making a compound of the formula



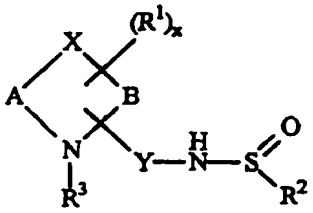
wherein A, B, x, R^1, R^2, and X are as recited in claim 1 and Y^1 is a C_1 to C_9 alkylene group, said method comprising the step of reacting a compound of the formula



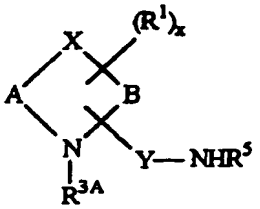
(wherein Pr^1 and Pr^2 are protecting groups) with a compound of the formula



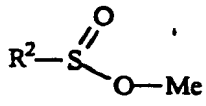
22. (Withdrawn) A method of making a compound of the formula



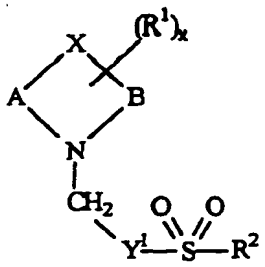
wherein A, B, x, R^1, R^2, R^3, R^5, X and Y are as recited in claim 1, said method comprising the step of reacting a compound of the formula



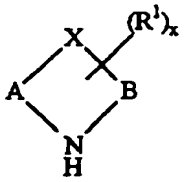
(wherein R^{3A} is C_1 to C_7 hydrocarbyl or a protecting group) with a compound of the formula



23. (Withdrawn) A method of making a compound of the formula

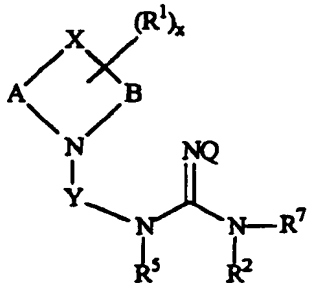


wherein A, B, x, R^1, R^2, and X are as recited in claim 1 and Y^1 is a C_1 to C_9 alkylene group, said method comprising the step of reacting a compound of the formula

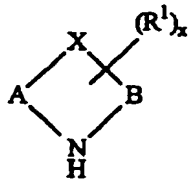


with a compound of the formula R^2-SO_2-Y'-CHO.

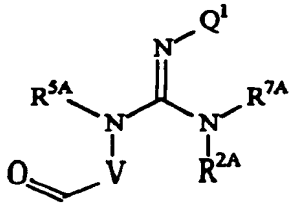
24. (Withdrawn) A method of making a compound of the formula



wherein A, B, x, R^1, R^2, R^5, R^7, Q, X and Y are as recited in claim 1, said method comprising the step of reacting a compound of the formula

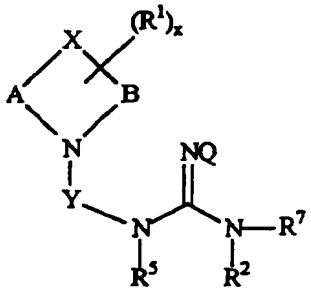


with a compound of the formula

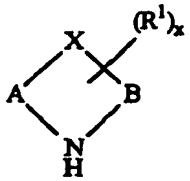


wherein V is C_1 to C_9 alkylene, and Q', R^{2A}, R^{5A} and R^{7A} are any of the groups defined for Q, R^2, R^5 and R^7, respectively, or a protecting group.

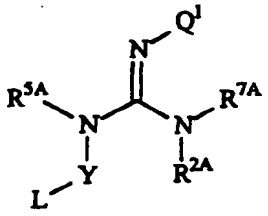
25. (Withdrawn) A method of making a compound of the formula



wherein A, B, x, R^1, R^2, R^5, R^7, Q, X and Y are as recited in claim 1, said method comprising the step of reacting a compound of the formula

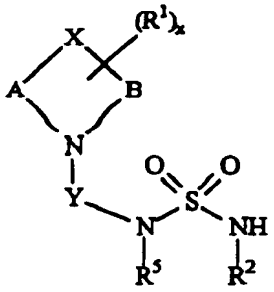


with a compound of the formula

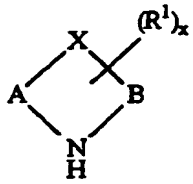


wherein L is a leaving group, and Q', R^{2A}, R^{5A} and R^{7A} are any of the groups defined for Q, R^2, R^5 and R^7, respectively, or a protecting group.

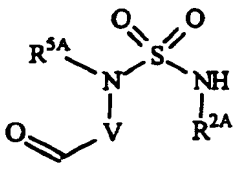
26. (Withdrawn) A method of making a compound of the formula



wherein A, B, x, R^1, R^2, R^5, X and Y are as recited in claim 1, said method comprising the step of reacting a compound of the formula

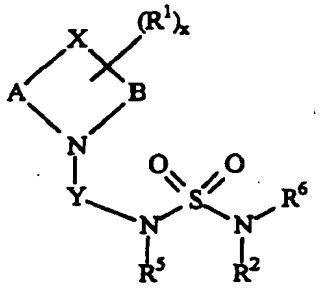


with a compound of the formula

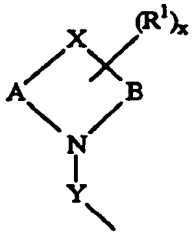


wherein V is C_1 to C_9 alkylene, and R^{2A} and R^{5A} are any of the groups recited for R^2 and R^5, respectively, or a protecting group.

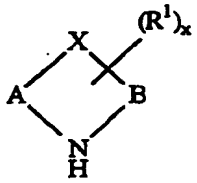
27. (Withdrawn) A method of making a compound of the formula



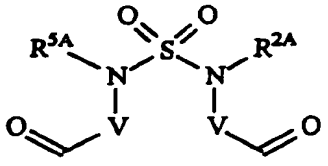
wherein A, B, x, R^1, R^2, R^5, X and Y are as recited in claim 1 (provided that the moiety



constitutes a group falling within the definition of R^6), said method comprising the step of reacting a compound of the formula



with a compound of the formula

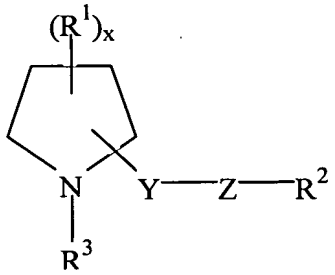


wherein V is C_1 to C_9 alkylene, and R^{2A} and R^{5A} are any of the groups recited for R^2 and R^5, respectively, or a protecting group.

28. (Cancelled)

29. (Withdrawn) A compound selected from the group consisting of:
N-(2-pyrrolidin-1-yl-ethyl)-2-naphthalenesulfonamide,
N-(3-pyrrolidin-1-yl-propyl)-2-naphthalenesulfonamide,
N-(4-pyrrolidin-1-yl-butyl)-2-naphthalenesulfonamide,
N-(2-pyrrolidin-1-yl-ethyl)-N-methyl-2-naphthalenesulfonamide, and
N-(2-(1-methyl-pyrrolidin-2-yl-ethyl)-2-naphthalenesulfonamide.

30. (Withdrawn) A compound of the formula



wherein

x is from 0 to 2;

R^1 is selected from the group consisting of hydroxy, C_1 to C_9 alkoxy (optionally substituted by halo), C_1 to C_9 cycloalkylalkoxy (wherein the cycloalkyl group is optionally substituted by C_1 to C_4 alkyl or halo, and the alkoxy group is optionally substituted by halo), arylalkoxy (wherein the aryl group is optionally substituted by C_1 to C_4 alkyl, C_1 to C_3 alkoxy or halo, and the alkoxy group is optionally substituted by halo) and C_1 to C_9 alkyl amino (wherein the alkyl group is optionally substituted by halo)

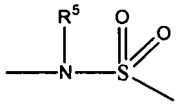
R^2 is selected from the group consisting of H, alkyl, aryl, arylalkyl, cycloalkyl and cycloalkylalkyl, wherein alkyl moieties are optionally substituted by halo, and aryl groups are optionally substituted by C_1 to C_4 alkyl, C_1 to C_4 alkoxy and halo,

R^3 is absent when -Y-Z-R^2 is attached to N, or R^3 is selected from the group consisting of H, C_1 to C_7 alkyl and benzyl, when

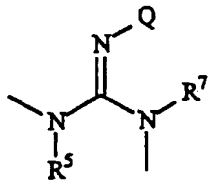
-Y-Z-R^2 is not attached to N;

Y is pentylene, hexylene, heptylene, octylene or nonylene; and

Z is



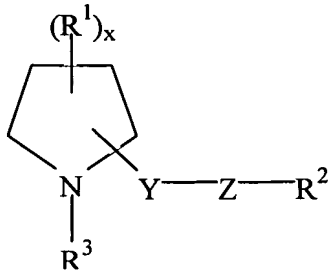
wherein R^5, R^6 and R^7 are independently H, aryl (C_1 to C_3) alkyl or cycloalkyl (C_1 to C_3) alkyl optionally substituted by halo, and Q is H or methyl, or Q is linked to R^5 or R^7 to form a five-membered ring or Q is linked to R^2 to form a six-membered ring, provided that when Z is



at least one of R^5 and R^7 is aryl(C_1 to C_3)alkyl or cycloalkyl(C_1 to C_3)alkyl, optionally substituted by halo;

or a pharmaceutically acceptable salt thereof.

31. (Withdrawn) A method of treating a patient in need of a sedative, a sleep regulator, an anticonvulsant, a regulator of hypothalamo-hypophyseal secretion, an antidepressant, a modulator of cerebral circulation, treatment of asthma or treatment of irritable bowel syndrome comprising administering to said patient a therapeutically effective amount of H_3 receptor ligand or a pharmaceutically acceptable salt thereof, said H_3 receptor ligand being a compound of the formula



wherein

x is from 0 to 2;

R^1 is selected from the group consisting of hydroxy, C_1 to C_9 alkoxy (optionally substituted by halo), C_1 to C_9 cycloalkylalkoxy (wherein the cycloalkyl group is optionally substituted by C_1 to C_4 alkyl or halo, and the alkoxy group is optionally substituted by halo), arylalkoxy (wherein the aryl group is optionally substituted by C_1 to C_4 alkyl, C_1 to C_3 alkoxy or halo, and the alkoxy group is optionally substituted by halo) and C_1 to C_9 alkyl amino (wherein the alkyl group is optionally substituted by halo)

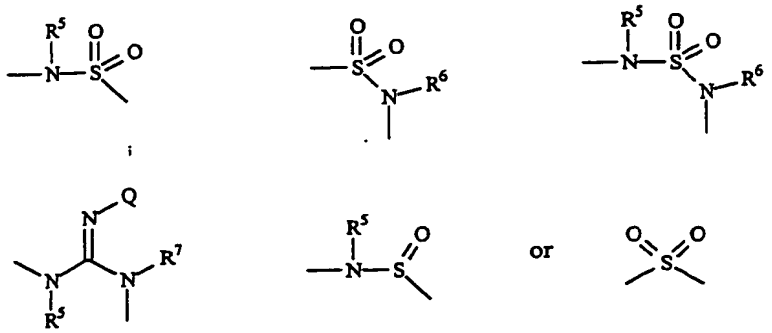
R^2 is selected from the group consisting of H, alkyl, aryl, arylalkyl, cycloalkyl and cycloalkylalkyl, wherein alkyl moieties are optionally substituted by halo, and aryl groups are optionally substituted by C_1 to C_4 alkyl, C_1 to C_4 alkoxy and halo,

R^3 is absent when -Y-Z-R^2 is attached to N, or R^3 is selected from the group consisting of H, C_1 to C_7 alkyl and benzyl, when

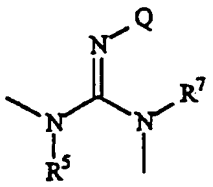
-Y-Z-R^2 is not attached to N;

Y is C_2 to C_{10} alkylene, in which one non-terminal carbon atom may be replaced by O; and

Z is



wherein R^5, R^6 and R^7 are independently H, aryl (C_1 to C_3) alkyl or cycloalkyl (C_1 to C_3) alkyl optionally substituted by halo, and Q is H or methyl, or Q is linked to R^5 or R^7 to form a five-membered ring or Q is linked to R^2 to form a six-membered ring, provided that when Z is



at least one of R^5 and R^7 is aryl(C_1 to C_3)alkyl or cycloalkyl(C_1 to C_3)alkyl, optionally substituted by halo;

or a pharmaceutically acceptable salt thereof.

32. (Withdrawn) The method of claim 31, wherein R^2 is selected from phenyl, halophenyl, benzyl, halobenzyl, phenylethyl, halophenylethyl, phenylpropyl, halophenylpropyl, phenylbutyl, halophenylbutyl, tolyl, methoxybenzyl, trifluoromethylbenzyl, halo-methoxybenzyl, phenylbenzyl, adamantanemethyl, adamantaneethyl, adamantanepropyl, cyclohexanemethyl, cyclohexaneethyl, and naphthyl.

33. (Withdrawn) The method of claim 31, wherein x is 0.

34. (Withdrawn) The method of claim 31, wherein x is 1 or 2, and R^1 is selected from hydroxy, C_1 to C_9 alkoxy (optionally substituted by halo), C_1 to C_9 cycloalkylalkoxy (wherein the cycloalkyl group is optionally substituted by C_1 to C_4 alkyl or halo, and the alkoxy group is optionally substituted by halo), arylalkoxy (wherein the aryl group is optionally substituted by C_1 to C_4 alkyl, C_1 to C_3 alkoxy or halo, and the alkoxy group is optionally substituted by halo) and C_1 to C_9 alkylamino wherein the alkyl group is optionally substituted by halo.

35. (Withdrawn) The method of claim 31, wherein Y is propylene, butylene, pentylene, hexylene, heptylene, octylene or nonylene.